

1. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx + b$ and choose the intervals that contain m and b .

$$(4, -10) \text{ and } (-10, 4)$$

- A. $m \in [-3.2, -0.3]$ $b \in [4, 12]$
 - B. $m \in [-3.2, -0.3]$ $b \in [-12, -3]$
 - C. $m \in [0.8, 1.1]$ $b \in [10, 18]$
 - D. $m \in [-3.2, -0.3]$ $b \in [10, 18]$
 - E. $m \in [-3.2, -0.3]$ $b \in [-15, -11]$
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2. Solve the equation below. Then, choose the interval that contains the solution.

$$-16(-11x + 2) = -5(17x - 18)$$

- A. $x \in [-0.38, -0.21]$
 - B. $x \in [0.46, 0.71]$
 - C. $x \in [-1.16, -0.56]$
 - D. $x \in [-0.07, 0.29]$
 - E. There are no real solutions.
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3. Solve the equation below. Then, choose the interval that contains the solution.

$$-9(3x - 19) = -12(7x - 18)$$

- A. $x \in [0.4, 0.9]$
- B. $x \in [4.7, 7]$
- C. $x \in [-8.5, -6.5]$
- D. $x \in [2.8, 3.8]$
- E. There are no real solutions.

4. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx + b$ and choose the intervals that contain m and b .

$$(-8, 11) \text{ and } (-3, -8)$$

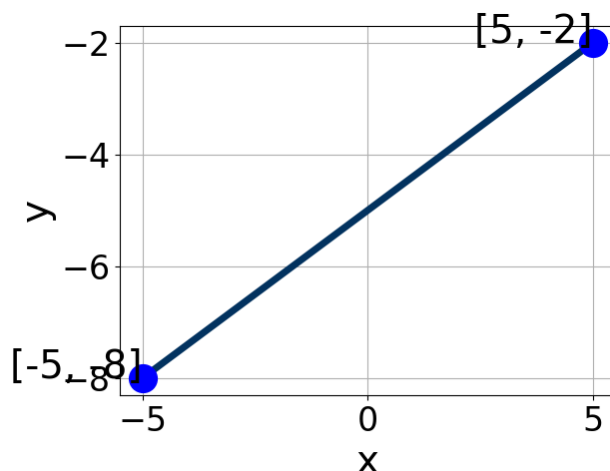
- A. $m \in [3.8, 4.8]$ $b \in [3.27, 3.59]$
B. $m \in [-11.8, -1.8]$ $b \in [19.25, 19.6]$
C. $m \in [-11.8, -1.8]$ $b \in [-5.52, -4.94]$
D. $m \in [-11.8, -1.8]$ $b \in [18.55, 19.3]$
E. $m \in [-11.8, -1.8]$ $b \in [-19.71, -19.2]$
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5. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b .

Perpendicular to $8x + 7y = 6$ and passing through the point $(4, 5)$.

- A. $m \in [0.83, 1]$ $b \in [1.41, 2.39]$
B. $m \in [-0.9, -0.74]$ $b \in [8.16, 8.58]$
C. $m \in [0.83, 1]$ $b \in [-1.77, -1.45]$
D. $m \in [0.83, 1]$ $b \in [0.58, 1.29]$
E. $m \in [0.98, 1.25]$ $b \in [1.41, 2.39]$
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6. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain A , B , and C .



- A. $A \in [-2.7, 1.1]$, $B \in [-4.6, 0.3]$, and $C \in [1, 7]$
 B. $A \in [2.5, 5]$, $B \in [3.8, 5.1]$, and $C \in [-31, -22]$
 C. $A \in [2.5, 5]$, $B \in [-6, -1.5]$, and $C \in [23, 28]$
 D. $A \in [-4.8, -2.7]$, $B \in [3.8, 5.1]$, and $C \in [-31, -22]$
 E. $A \in [-2.7, 1.1]$, $B \in [0.9, 2.6]$, and $C \in [-7, -4]$

7. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{3x + 6}{8} - \frac{-3x - 8}{5} = \frac{9x + 5}{7}$$

- A. $x \in [27.97, 30.97]$
 B. $x \in [5.26, 6.26]$
 C. $x \in [-0.45, 1.55]$
 D. $x \in [-8.03, -4.03]$
 E. There are no real solutions.

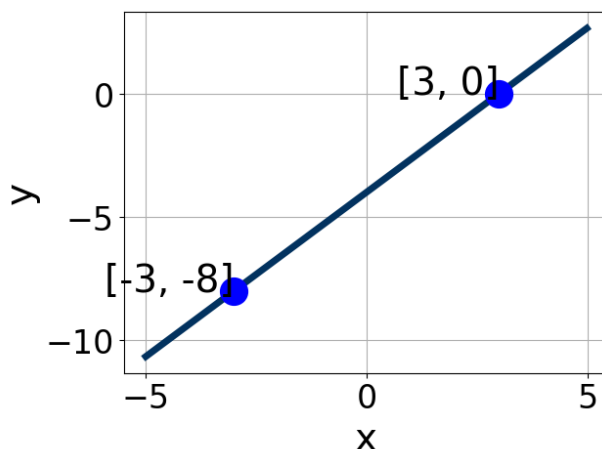
8. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{4x + 9}{3} - \frac{-9x + 3}{7} = \frac{5x - 4}{2}$$

- A. $x \in [-5.57, 0.43]$

- B. $x \in [-84, -80]$
- C. $x \in [-41.4, -36.4]$
- D. $x \in [-45.6, -43.6]$
- E. There are no real solutions.

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9. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain A , B , and C .



- A. $A \in [-2.2, 0.8]$, $B \in [-0.09, 1.58]$, and $C \in [-7, -3]$
- B. $A \in [-4.6, -2.6]$, $B \in [1.71, 3.62]$, and $C \in [-13, -10]$
- C. $A \in [1.9, 4.6]$, $B \in [-3.18, -2.15]$, and $C \in [12, 16]$
- D. $A \in [-2.2, 0.8]$, $B \in [-1.34, -0.92]$, and $C \in [0, 9]$
- E. $A \in [1.9, 4.6]$, $B \in [1.71, 3.62]$, and $C \in [-13, -10]$

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10. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b .

Perpendicular to $3x + 8y = 4$ and passing through the point $(4, -10)$.

- A. $m \in [2.5, 4.8]$ $b \in [-16, -9]$
- B. $m \in [2.5, 4.8]$ $b \in [-23.67, -19.67]$
- C. $m \in [-0.5, 2.6]$ $b \in [-23.67, -19.67]$

D. $m \in [2.5, 4.8]$ $b \in [17.67, 22.67]$

E. $m \in [-5.3, -1.6]$ $b \in [-1.33, 3.67]$
